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SEQUENCE LISTING

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taccagatgt gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga      120
cagagtcacc atcacttgcc gggcgagtca gggcattagc aattatttag cctgggtatca      180
gcagaaaaca gggaaagtgc ctaagttcct gatctatgaa gcatccactt tgcaatcagg      240
gggtcccatct cggttcagtg gcggtggatc tgggacagat ttcactctca ccatcagcag      300
cctgcagcct gaagatgttg caacttatta ctgtcaaaat tataacagtg ccccatcac      360
tttcggccct gggaccaaag tggatatcaa acgaactgtg gctgcaccct ctgtcttcat      420
cttcccgcca tctgatgagc agttgaaatc tggaactgct agc                        463
```

<210> 17

<211> 127

<212> PRT

<213> Homo sapiens

<400> 17

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Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp Leu Pro
1          5          10          15
Asp Thr Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
20        25        30
Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly
35        40        45
Ile Ser Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro
50        55        60
Lys Phe Leu Ile Tyr Glu Ala Ser Thr Leu Gln Ser Gly Val Pro Ser
65        70        75        80
Arg Phe Ser Gly Gly Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
85        90        95
```

Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn
100 105 110

Ser Ala Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
115 120 125

<210> 18

<211> 508

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region,
portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning
junction

<400> 18

ggatctcacc atgggggtcaa ccgccatcct caccatggag ttggggctgc gctgggttct 60
cctcgttgct cttttaagag gtgtccagtg tcaggtgcag ctggtggagt ctgggggagg 120
cgtgggtccag cctgggaggt ccctgagact ctctgtgca gcgtctggat tcaccttcag 180
taactatgtc atgcaactggg tccgccaggc tccaggcaag gggctggagt ggggtggcaat 240
tatatggtat gatggaagta ataaatacta tgcagactcc gtgaagggcc gattcaccat 300
ctccagagac aattccaaga acacgctgta tctgcaaatag aacagcctga gagccgagga 360
cacggctgtg tattactgtg cgggtggata taactggaac tacgagtacc actactacgg 420
tatggacgtc tggggccaag ggaccacggt caccgtctcc tcagcctcca ccaagggccc 480
atcgggtcttc cccctggcac cctctagc 508

<210> 19

<211> 143

<212> PRT

<213> Homo sapiens

<400> 19

Met Glu Leu Gly Leu Arg Trp Val Leu Leu Val Ala Leu Leu Arg Gly
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Asn Tyr Val Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60
Glu Trp Val Ala Ile Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala
65 70 75 80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110
Tyr Tyr Cys Ala Gly Gly Tyr Asn Trp Asn Tyr Glu Tyr His Tyr Tyr
115 120 125
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
130 135 140

<210> 20

<211> 463

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 20

ggatctcacc atgaggggtcc ccgctcagct cctgggggtc ctgctgctct gtttcccagg 60
tgccagatgt gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga 120
cagagtcacc atcacttgctc gggcgagtc gggcattacc aattatttag cctgggtttca 180
gcagaaacca gggaaagccc ctaagtcctt tatctatgct gcatccagtt tgcaaagtgg 240
gggtcccatca aagttcagcg gcagtggatc tgggacagat ttcagtctca ccatcagcag 300
cctgcagcct gaagattttg caacttatta ctgccaacag tataatagtt acccgatcac 360
cttcggccaa gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtcttcat 420
cttcccgcc a tctgatgagc agttgaaatc tggaactgct agc 463

<210> 21

<211> 127

<212> PRT

<213> Homo sapiens

<400> 21

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Cys Phe Pro

1	5	10	15												
Gly	Ala	Arg	Cys	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser
			20					25					30		
Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly
		35					40					45			
Ile	Thr	Asn	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro
	50					55					60				
Lys	Ser	Leu	Ile	Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser
65					70					75				80	
Lys	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Ser	Leu	Thr	Ile	Ser
			85						90					95	
Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn
			100					105					110		
Ser	Tyr	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	
	115						120					125			

<210> 22

<211> 490

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 22

ggatctcacc atggagttgg gacttagctg ggttttcctc gttgctcttt taagaggtgt	60
ccagtgtcag gtccagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct	120
gagactctcc tgtgcagcgt ctggattcac cttcagtagc tatggcatgc actgggtccg	180
ccaggctcca ggcaaggggc tggactgggt ggcaattatt tggcatgatg gaagtaataa	240
atactatgca gactccgtga agggccgatt caccatctcc agagacaatt ccaagaagac	300
gctgtacctg caaatgaaca gtttgagagc cgaggacacg gctgtgtatt actgtgcgag	360
agcttggggc tatgactacg gtgactatga atactacttc ggtatggacg tctggggcca	420
agggaccacg gtcaccgtct cctcagcctc caccaagggc ccatcggctt tccccctggc	480
accctctagc	490

<210> 23

<211> 145

<212> PRT

<213> Homo sapiens

<400> 23

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Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1          5          10          15
Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20          25          30
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35          40          45
Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50          55          60
Asp Trp Val Ala Ile Ile Trp His Asp Gly Ser Asn Lys Tyr Tyr Ala
65          70          75          80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys
85          90          95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100         105         110
Tyr Tyr Cys Ala Arg Ala Trp Ala Tyr Asp Tyr Gly Asp Tyr Glu Tyr
115         120         125
Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
130         135         140

```

Ser
145

<210> 24

<211> 463

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 24

```

ggatctcacc atgaggggtcc ctgctcagct cctgggggtc ctgctgctct gtttcccagg      60
tgccagatgt gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga      120
cagagtcacc atcacttgtc gggcgagtc gggcattagc cattatttag cctgggtttca      180
gcagaaacca gggaaagccc ctaagtcctt gatctatgct gcatccagtt tgcaaagtgg      240

```

gggtcccatca aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag 300
 cctacagcct gaagattttg caacttatta ctgccaacag tataatagtt tcccgctcac 360
 tttcggcgga gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtcttcat 420
 cttcccgcca tctgatgagc agttgaaatc tggaactgct agc 463

<210> 25

<211> 127

<212> PRT

<213> Homo sapiens

<400> 25

Met	Arg	Val	Pro	Ala	Gln	Leu	Leu	Gly	Leu	Leu	Leu	Leu	Cys	Phe	Pro
1				5				10						15	
Gly	Ala	Arg	Cys	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser
			20					25					30		
Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly
		35					40					45			
Ile	Ser	His	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro
	50					55					60				
Lys	Ser	Leu	Ile	Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser
65					70					75				80	
Lys	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser
			85						90					95	
Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn
			100					105					110		
Ser	Phe	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	
		115				120						125			

<210> 26

<211> 469

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 26

ggatcccacc atgggggtcaa ccgtcatcct cgccctcctc ctggctgttc tccaaggagt 60

ctgtgccgag gtgcagctgg tgcagtctgg agcagaggtg aaaaagcccg gggagtctct 120
gaagatctcc tgtaagggtt ctggatacag ctttaccagt tactggatcg gctgggtgcg 180
ccagatgccc gggaaaggcc tggagtggat ggggatcatc tatcctgggtg actctgatac 240
cagatacagc ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatcagcac 300
cgcctacctg cagtggagca gcctgaaggc ctcggaacac gccatgtatt actgtgcgag 360
acggatggca gcagctggcc cctttgacta ctggggccag ggaaccctgg tcaccgtctc 420
ctcagcctcc accaagggcc catcgggtctt ccccctggca ccctctagc 469

<210> 27

<211> 138

<212> PRT

<213> Homo sapiens

<400> 27

Met Gly Ser Thr Val Ile Leu Ala Leu Leu Leu Ala Val Leu Gln Gly
1 5 10 15
Val Cys Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30
Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe
35 40 45
Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu
50 55 60
Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser
65 70 75 80
Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser
85 90 95
Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met
100 105 110
Tyr Tyr Cys Ala Arg Arg Met Ala Ala Ala Gly Pro Phe Asp Tyr Trp
115 120 125
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
130 135

<210> 28

<211> 466

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 28

```

ggatctcacc atgaggggtcc ccgctcagct tctcttcctt ctgctactct ggctcccaga      60
taccactgga ggaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga      120
aagagccacc ctctcctgca ggaccagtca gagtattggc tggaaacttag cctggtacca      180
acagaaacct ggccagggtc ccaggctcct catctatggt gcatcttcca ggaccactgg      240
tatcccagcc aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag      300
cctgcagtct gaagattctg cagtttatta ctgtcagcat tatgataact ggcccatgtg      360
cagttttggc caggggaccg agctggagat caaacgaact gtggctgcac catctgtctt      420
catcttcccg ccatctgatg agcagttgaa atctggaact gctagc                      466

```

<210> 29

<211> 128

<212> PRT

<213> Homo sapiens

<400> 29

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Met Arg Val Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1              5              10              15
Asp Thr Thr Gly Gly Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser
20              25              30
Val Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ser
35              40              45
Ile Gly Trp Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
50              55              60
Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Thr Thr Gly Ile Pro Ala
65              70              75              80
Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
85              90              95
Ser Leu Gln Ser Glu Asp Ser Ala Val Tyr Tyr Cys Gln His Tyr Asp
100             105             110
Asn Trp Pro Met Cys Ser Phe Gly Gln Gly Thr Glu Leu Glu Ile Lys
115             120             125

```

<210> 30

<211> 487

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 30

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ggatctcacc atggagtttg ggctgtgctg gattttcctc gttgctcttt taagaggtgt      60
ccagtgtcag gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct      120
gagactctcc tgtgcagcct ctggattcac cttcattagc tatggcatgc actgggtccg      180
ccaggctcca ggcaaggggc tggagtgggt ggcagttata tcatatgatg gaagtaataa      240
atactatgca gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac      300
gctgtatctg caaatgaaca gcctgagagc tgaggacacg gctgtgtatt actgtgcgag      360
agtattagtg ggagctttat attattataa ctactacggg atggacgtct ggggccaaagg      420
gaccacggtc accgtctcct cagcctccac caagggccca tcggtcttcc ccctggcacc      480
ctctagc                                     /                                487

```

<210> 31

<211> 144

<212> PRT

<213> Homo sapiens

<400> 31

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Met Glu Phe Gly Leu Cys Trp Ile Phe Leu Val Ala Leu Leu Arg Gly
1              5              10              15
Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20              25              30
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35              40              45
Ile Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50              55              60
Glu Trp Val Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala
65              70              75              80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85              90              95

```

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Val Leu Val Gly Ala Leu Tyr Tyr Tyr Asn Tyr
115 120 125

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
130 135 140

<210> 32

<211> 478

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 32

ggatctcacc atgagggtcc ctgctcagct cctggggctg ctaatgctct ggatacctgg 60
atccagtgc gatattgtga tgaccagac tccactctct ctgtccgtca ccctggaca 120
gccggcctcc atctctgca agtctagtca gagcctctg catagtgatg gaaagacctt 180
tttgtattgg tatctgcaga agccaggcca gcctccacag ctctgatct atgaggtttc 240
caaccggttc tctggagtgc cagatagggt cagtggcagc gggtcaggga cagatttcac 300
actgaaaatc agccgggtgg aggctgagga tgttgggctt tattactgca tgcaaagtat 360
acagcttccg ctactttcg gcggaggag caaggtggag atcaaacgaa ctgtggctgc 420
accatctgtc ttcattctcc cgccatctga tgagcagttg aaatctggaa ctgctagc 478

<210> 33

<211> 132

<212> PRT

<213> Homo sapiens

<400> 33

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Ile Pro
1 5 10 15

Gly Ser Ser Ala Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser
20 25 30

Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser
35 40 45

Leu Leu His Ser Asp Gly Lys Thr Phe Leu Tyr Trp Tyr Leu Gln Lys
 50 55 60
 Pro Gly Gln Pro Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe
 65 70 75 80
 Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
 85 90 95
 Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Leu Tyr Tyr
 100 105 110
 Cys Met Gln Ser Ile Gln Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys
 115 120 125
 Val Glu Ile Lys
 130

<210> 34

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide

<400> 34

gaagatctca ccatg

15

<210> 35

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide

<400> 35

aactagctag cagttccaga tttcaactgc tcatcagat

39

<210> 36

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide

<400> 36

gaagatctca ccatg

15

<210> 37

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide

<400> 37

gctctagagg gtgccagggg gaagaccgat

30